

Kyle Fox, William B. Kinnersley, Daniel McDonald, Nathan Orlow,  
and Gregory J. Puleo

*Spanning Paths in Fibonacci-Sum Graphs*,  
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**Abstract**

Motivated by a problem posed by Barwell, we apply graph theory to determine all  $n$  for which the numbers  $1, \dots, n$  can be ordered so that the sum of any two consecutive terms is a Fibonacci number. We prove that such an ordering exists if and only if  $n$  is 9, 11, a Fibonacci number, or one less than a Fibonacci number. For each such  $n$ , we also prove that at most two such orderings exist, up to symmetry.